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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ISABELLE ROLLAT-CORVOL and HENRI SAMAIN

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Appeal 2009-003513  
Application 09/719,101  
Technology Center 1600

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Decided: November 2, 2009

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Before DONALD E. ADAMS, LORA M. GREEN, and  
JEFFREY N. FREDMAN, *Administrative Patent Judges*.

FREDMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a cosmetic composition for keratinous fibers. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

*Statement of the Case*

*Background*

“The fixing of the hairstyle is an important component of hairstyling which consists in maintaining the shape already made or in shaping the hair” (Spec. 1, ll. 21-23). According to the Specification, “the shape initially given to the hairstyle gradually disappears during the day . . . . Consequently, it is often necessary to repeat all the hairstyling and fixing operations if it is desired to recover the initial hairstyle” (Spec. 3, ll. 1-6).

*The Claims*

Claims 35-58, 60, 69, 78, 79, 83, 84, and 88-106 are on appeal<sup>1</sup>.

Claim 38 is representative and reads as follows:

38. A cosmetic composition for keratinous fibers comprising, in a cosmetically acceptable medium, at least one tacky polymer having a glass transition temperature (T<sub>g</sub>) of less than 20°C and at least one fixing polymer having a glass transition temperature (T<sub>g</sub>) greater than 15°C.

*The prior art*

The Examiner relies on the following prior art references to show unpatentability:

Lee	EP 0551749 A2	Jul. 21, 1993
Miller	WO 95/18191 A1	Jul. 6, 1995

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<sup>1</sup> The Examiner has withdrawn the Obvious-type Double Patenting rejection in view of a terminal disclaimer (*see* Ans. 2).

*The issues*

A. The Examiner rejected claims 38-43, 45-50, 69, 78, 79, 83, 84, and 88-106 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement (Ans. 3).

B. The Examiner rejected claims 38-58, 69, 78, 79, 83, 84, and 88-106 under 35 U.S.C. § 103(a) as being obvious over Lee and Miller (Ans. 4-5).

A. *35 U.S.C. § 112, first paragraph, written description*

The Examiner finds that “[t]he claims are directed to composition comprising polymers, which are solely defined by physical properties ‘tacky’ ;  $T_g$ ,  $F_{max}$ , or  $ES_{(M/V)}$ . etc. However, the specification provides no written description as to what the structural characteristics of a polymer would be required to meet all the functional limitations herein” (Ans. 3).

Appellants argue that “the specification provides clear guidance on the chemical properties and structure of tacky polymers according to the present claims” (App. Br. 13). Appellants argue that “[i]n the specification at pages 7-9, the preparation of branched sulphonic polyesters, previously disclosed among preferred embodiments of tacky polymers, is described in detail, including specific disclosure of suitable chemical structures and molar ratios for each starting material” (App. Br. 13). Appellants argue that “the specification at pages 10-12 details the chemical structure and composition of (meth)acrylic ester polymers, also previously disclosed among preferred embodiments of tacky polymers” (App. Br. 13).

In view of these conflicting positions, we frame the written description issue before us as follows:

Have Appellants demonstrated that the Examiner erred in finding that the disclosure of the Specification failed to prove written descriptive support for the tacky polymers of claim 38?

*Findings of Fact (FF)*

1. The Specification teaches that “a tacky polymer is chosen which has a peeling profile defined by at least one maximum peeling force  $F_{\max} > 3$  Newton, and preferably greater than 5 N” (Spec. 4, ll. 11-14).

2. The Specification teaches that “[t]he maximum peeling force  $F_{\max}$  is the maximum tensile force, measured with the aid of an extensometer, necessary to peel apart the respective 38 mm<sup>2</sup> surfaces of two rigid, inert and nonabsorbent supports (A) and (B) placed opposite each other” (Spec. 4, ll. 20-24).

3. The Specification teaches that “a branched sulphonic polymer or meth(acrylic) ester polymers are chosen as tacky polymer” (Spec. 6, ll. 22-23).

4. The Specification teaches that the “branched sulphonic polymers more particularly desired by the present invention are those described in patent applications WO 95/18191, WO 97/08261 and WO 97/20899” (Spec. 9, ll. 21-24).

5. The Specification teaches that “there is advantageously chosen, as branched sulphonic polymer, the polymer AQ 1350 marketed by the company Eastman” (Spec. 10, ll. 1-3).

6. The Specification teaches that the “tacky (meth)acrylic ester polymers particularly desired by the present invention are those described in patents US 5 234 627 and US 4 007 147 (Spec. 12, ll. 7-9).

7. The Specification teaches that the “polymer Hycar 26 120 marketed by the company Goodrich is advantageously chosen as (meth) acrylic ester polymer[]” (Spec. 12, ll. 10-12).

*Principles of Law*

It is the Examiner's “initial burden [to] present [ ] evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” *In re Wertheim*, 541 F.2d 257, 263 (CCPA 1976).

To satisfy the written description requirement, the inventor must “convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention.” *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991). “One shows that one is ‘in possession’ of the invention by describing the invention, with all its claimed limitations.” *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

“Although [the inventor] does not have to describe exactly the subject matter claimed ... the description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.” *In re Gosteli*, 872 F.2d 1008, 1012 (Fed. Cir. 1989).

*Analysis*

The Specification provides a precise description of how to determine whether a particular polymer satisfies the requirements of claim 38 (FF 1-2). More importantly, the Specification provides two broad generic types of polymers, branched sulphonic polymers and meth(acrylic) ester polymers, which satisfy the claim requirements (FF 3-7). The Specification further

identifies two specific, commercially available, products which satisfy the requirements of claim 38 (FF 5, 7).

The Examiner finds that “the specification provides no written description as to what the structural characteristics of a polymer would be required to meet all the functional limitations herein” (Ans. 3). We are not persuaded, since the Specification provides several pages of specific structures of a large number of branched sulphonic polymers and meth (acrylic) ester polymers, which are taught to meet the functional limitations. While the Specification does not identify all possible species, the Specification provides a reasonable number of species (FF 3-7) as well as precise methods to determine whether other species fall within the scope of the claim (FF 1-2). *See Utter v. Hiraga*, 845 F.2d 993, 998 (Fed.Cir.1988) (“A specification may, within the meaning of 35 U.S.C. § 112 para. 1, contain a written description of a broadly claimed invention without describing all species that [the] claim encompasses.”)

We are also not persuaded by the Examiner’s reliance on *Rochester*, where the Examiner finds that “a screen[ing] method for finding a compound is not a proper written description for the compound” (Ans. 6). In *Rochester*, the court found that the patent at issue did “not provide any guidance that would steer the skilled practitioner toward compounds that can be used to carry out the claimed methods-an essential element of every claim of that patent-and has not provided evidence that any such compounds were otherwise within the knowledge of a person of ordinary skill in the art at the relevant time.” *University Of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 929 (Fed. Cir. 2004).

In the instant case, the Specification provides significant guidance regarding specific compounds which could be used to carry out the invention (FF 3-7), even exemplifying two operable specific commercially available molecules (FF 5, 7).

*Conclusion of Law*

Appellants have demonstrated that the Examiner erred in finding that the disclosure of the Specification failed to provide written descriptive support for the tacky polymers of claim 38.

*B. 35 U.S.C. § 103(a) over Lee and Miller*

The Examiner finds that “Lee teaches a hair treatment composition comprising a water-insoluble, water-dispersible polymeric resin and a water-soluble amphoteric polymer” (Ans. 4). The Examiner finds that “Lee does not teach expressly the employment of branched sulfonic polyester herein with Tg less than 20°C” (Ans. 4). The Examiner finds that “Miller et al. teaches the improved branched sulfonic polyester with lowed Tg” (Ans. 4).

Appellants argue that “*Lee and Miller*, when considered as a whole, provide no reason that would have prompted a person of ordinary skill in art to modify and combine the references in the manner suggested by the Examiner” (App. Br. 15). Appellants argue that “[o]ne of ordinary skill would thus recognize that Millers hot-melt adhesives have material properties incompatible with the ‘low stickiness’ and ‘good combing characteristics’ required by hairspray compositions according to Lee” (App. Br. 17).

In view of these conflicting positions, we frame the obviousness issue before us as follows:



Have Appellants demonstrated that the Examiner erred in finding it obvious to modify the hair treatment composition of Lee with the hot melt adhesives of Miller?

*Findings of Fact*

8. Lee teaches that “[h]airspray compositions must meet a number of functional requirements. These include good holding ability and curl retention without giving a harsh, brittle feeling to the hair . . . the compositions must include the properties of low stickiness, good combing characteristics” (Lee 2, ll. 10-14).

9. The Specification teaches that “Amphomer” is a fixing polymer (Spec. 15, l. 22).

10. Lee teaches that one component of the hairspray is “AMPHOMER LV-71” (Lee 3, l. 33).

11. Lee teaches that a “variety of water-insoluble dispersible polymeric resins may be employed for this invention. Most preferred are polyesters functionalized with a sulpho ( $\text{SO}_3^-$ ) group in amounts sufficient to water-disperse the polyester. Illustrative of such resins are Eastman AQ polymers . . . Most preferred is Eastman AQ 55S” (Lee 3, ll. 15-18).

12. Lee teaches that preferred water-insoluble polymers have “a glass transition temperature ranging from about 50°C to about 70°C, preferably about 55°C” (Lee 3, ll. 17-18).

13. Lee teaches that the “water-insoluble resin provides a good to moderate hold while importantly maintaining a low viscosity, i.e., not higher than 3.0 centipoise at 25°C” (Lee 3, ll. 9-11).

14. Miller teaches that the “hot melt adhesive composition according to the present invention preferably has a viscosity of 1,500 to 30,000 centipoise . . . at 350°F (177°C)” (Miller 18, ll. 19-21).

15. Miller teaches that a “low Tg means that the adhesive compositions will not be brittle, thus, cartons adhered together with the adhesive compositions of the present invention when impacted, even at extremely cold temperatures will not shatter and thus maintain adhesion” (Miller 18, ll. 10-15).

16. Miller teaches ranges where the “preferred Tg of the adhesive composition according to the present invention is below 10°C and more preferably varies from 4 to -20°C, with a Tg of 4 to -13°C being most preferred . . . Thus Tgs below 4°C and even below 0°C are preferred” (Miller 18, ll. 1-7).

*Principles of Law*

“[W]hen the question is whether a patent claiming the combination of elements of prior art is obvious” the relevant inquiry is “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

*KSR* holds that an invention “composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *Id.* There must be “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *Id.*

The test for non-analogous art is first whether the art is within the field of the inventor's endeavor and, if not, whether it is “reasonably

pertinent to the problem with which the inventor was involved.” *In re Wood*, 599 F.2d 1032, 1036 (CCPA 1979). “A reference is reasonably pertinent if, even though it may be in a different field” of endeavor, it logically would have commended itself to an inventor's attention in considering his problem “because of the matter with which it deals.” *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).

### *Analysis*

We agree with Appellants that the combination of Lee and Miller “provide no reason that would have prompted a person of ordinary skill in art to modify and combine the references in the manner suggested by the Examiner” (App. Br. 15). In our opinion, the Examiner has used the instant claims as a blueprint for combining the references which amounts to impermissible hindsight.

While Lee clearly teaches hairspray compositions which reasonably comprise fixing polymers and tacky polymers (FF 8-11), Lee provides no disclosure and no reason to select tacky polymers with a Tg of less than 20°C as required by claim 38 (*see* Ans. 4).

We agree with Appellants that “*Miller*’s hot-melt adhesives have material properties incompatible with the ‘low stickiness’ and ‘good combing characteristics’ required by hairspray compositions” (App. Br. 17). We agree with Appellants primary point, which is that the ordinary practitioner would have had no reason to look to the hot melt adhesive art to select tacky polymers for hairspray because the desired properties for hairsprays differ significantly from the properties desired for hot melt adhesives.

In our opinion, Miller is nonanalogous art since Miller is clearly not within the field of the inventor's endeavor and since Miller is not reasonably pertinent to the problem with which the inventor was involved. To the extent that Lee was interested in tacky adhesives, Lee desired low viscosity adhesives, with viscosities below 3 centipoise (FF 13) while Miller teaches adhesives with viscosities significantly greater than those desired by Lee (FF 14).

*Conclusion of Law*

Appellants have demonstrated that the Examiner erred in finding it obvious to modify the hair treatment composition of Lee with the hot melt adhesives of Miller.

SUMMARY

In summary, we reverse the rejection of claims 38-43, 45-50, 69, 78, 79, 83, 84, and 88-106 under 35 U.S.C. § 112, first paragraph.

We reverse the rejection of claims 38-58, 69, 78, 79, 83, 84, and 88-106 under 35 U.S.C. § 103(a) as being obvious over Lee and Miller.

REVERSED

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